

NOVEMBER/DECEMBER 2023

GAM33/DAM33 — BIOTECHNOLOGY

Time : Three hours

Maximum : 75 marks



SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define transgenic plants.
2. State the advantages of BT cotton.
3. Define stem cell.
4. What is meant by IVF technology?
5. What is gene therapy?
6. Elaborate ADA. State its uses.
7. Define biosurfactant.
8. What does xenobiotic means?
9. List out the pharmaceutical products produced by mammalian cells.
10. What are interferons?

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions.

11. (a) Illustrate account on Agrobacterium mediated gene transfer.

Or

- (b) Briefly describe particle bombardment.

12. (a) How IVF technology used for livestock improvement?

Or

- (b) Describe in brief Retro vector method and its advantages.

13. (a) Recall the principle of stem cell therapy.

Or

- (b) Infer note on human artificial chromosome.

14. (a) How microbes used for the removal of metal ions? Explain it.

Or

- (b) Define MEOR. Explain it.

15. (a) Elucidate nanoparticle mediated drug delivery system.

Or

- (b) Extent note on tissue plasminogen activators.



SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. How biotechnology improve the crop? Explain it.
17. Define transgenic animal. Explain transgenic cattle and transgenic fish.
18. What recombinant vaccine? Add note on its types and advantages.
19. Discuss types of bioremediation.
20. Write an essay about drug designing.